

2. Bob

Program Name: Bob.java

Input File: bob.dat

Little Bob is a fifth grader who is learning about order of operations in arithmetic. His teacher is emphasizing the fact that one must do multiplication before addition.

Little Bob's class has just completed a unit on putting numbers in order. Little Bob's older brother Big Bob wants to help his sibling and at the same time practice his Java programming. So, he has given his brother a challenge to do. While the younger Bob is solving the problem by hand, Big Bob will write a program to check the work.

Read in five integers, no one number is equal to any of the other four. Sort the integers from largest to smallest creating a list we will call A, B, C, D, and E where A is the largest value and E is the smallest. Plug the numbers into the following math expression and find the value.

$$A \times B + C + D \times E$$

Go ahead and write the program, for all the Bobs out there. They are counting on you.

Input: First line contains a single integer **T** representing the number of test cases that follow with $T \leq 10$. Each test case is a line of exactly 5 integers separated by whitespace, each with a value in range [0, 100]. There will be no repeats on a line – that is, the five values will all be different.

Output: For each test case, output 1 integer representing: $A \times B + C + D \times E$ where the five integers are sorted from largest to smallest.

Sample input:

```
5
1 2 3 4 5
11 43 9 22 17
4 8 5 7 6
15 51 20 63 12
3 8 0 9 2
```

Sample output:

```
25
1062
82
3413
75
```